

Application No. OH0144975

Issue Date:

Effective Date:

Expiration Date: 5 years

Ohio Environmental Protection Agency
Authorization to Discharge Under the
National Pollutant Discharge Elimination System

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq., hereinafter referred to as the "Act"), and the Ohio Water Pollution Control Act (Ohio Revised Code Section 6111),

PTTGC America LLC

is authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the PTTGCA Petrochemical Complex wastewater treatment works located at Old SR 7 & Ferry Landing Rd (Hwy 2), Shadyside, Ohio, Belmont County and discharging to the Ohio River and Lockwood Run in accordance with the conditions specified in Parts I, II, III, IV, V and VI of this permit.

I have determined that a lowering of water quality in the Ohio River and Lockwood Run is necessary. In accordance with OAC 3745-1-05, this decision was reached only after examining a series of technical alternatives, reviewing social and economic issues related to the degradation, and considering all public and appropriate intergovernmental comments. The lowering of water quality is necessary to accommodate important social or economic development in the area in which the water body is located.

This permit is conditioned upon payment of applicable fees as required by Section 3745.11 of the Ohio Revised Code.

This permit and the authorization to discharge shall expire at midnight on the expiration date shown above. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information and forms as are required by the Ohio EPA no later than 180 days prior to the above date of expiration.

Craig W. Butler
Director

Total Pages: 61

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IF00019001. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 001 - Final

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>							<u>Monitoring Requirements</u>		
	Concentration Specified Units				Loading* kg/day			Measuring	Sampling	Monitoring
Parameter	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly	Frequency	Type	Months
00335 - Chemical Oxygen Demand (Low Level) - mg/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly

Notes for Station Number 0IF00019001:

a. The benchmark concentrations and requirements of Parts IV and V of this permit apply to outfalls 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. Monitoring for these parameters shall occur at 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. eDMR reporting requirements for this outfall shall begin 90 days prior to start-up of the plant.

b. The benchmark concentrations listed below apply to these outfalls. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices in Part IV, Items A-C. See Part V.B for the dates when the benchmark concentrations become applicable.

Parameter	Benchmark
COD	120 mg/l
Zinc	310 ug/L

c. Monitoring and sampling shall be performed as required in the above table and as stated in Part V.B. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1=January - March, Q2=April - June, Q3=July - September, Q4=October - December). Discharge Monitoring Reports (DMRs) must be submitted monthly. If there are no discharges during the month, select the "No Discharge" check box on the eDMR.

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IF00019002. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 002 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units		Loading* kg/day					Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Day	Maximum Indicating Thermometer	All
00400 - pH - S.U.	9.0	6.0	-	-	-	-	-	1/Week	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Week	Grab	All
00665 - Phosphorus, Total (P) - mg/l	1.6	-	-	1.0	26.6	-	16.7	1/Week	24hr Composite	All
00900 - Hardness, Total (CaCO3) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00940 - Chloride, Total - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00945 - Sulfate, (SO4) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01094 - Zinc, Total Recoverable - ug/l	310	-	-	-	5.16	-	-	1/Week	24hr Composite	All
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Week	24hr Composite	All
01113 - Cadmium, Total Recoverable - ug/l	13	-	-	-	0.22	-	-	1/Week	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	37	-	-	-	0.62	-	-	1/Week	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
50060 - Chlorine, Total Residual - mg/l	0.038	-	-	-	-	-	-	1/Week	Grab	All
50092 - Mercury, Total (Low Level) - ng/l	1700	-	-	12	0.028	-	0.0020	1/Month	Grab	All
61425 - Acute Toxicity, Ceriodaphnia dubia - TUa	1.0	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
61427 - Acute Toxicity, Pimephales promelas - TUa	1.0	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Week	24hr Composite	All

Notes for Station Number 0IF00019002:

* Effluent loadings based on average design flow of 4.4 MGD.

Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form and PIN the eDMR. eDMR reporting requirements for this outfall shall begin 90 days prior to start-up of the plant.

Residual Chlorine - see Part II, Item G.

Mercury - see Part II, Item K.

Acute Toxicity - see Part II, Item M.

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IF00019003. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 003 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units		Loading* kg/day					Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00335 - Chemical Oxygen Demand (Low Level) - mg/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly

Notes for Station Number 0IF00019003:

a. The benchmark concentrations and requirements of Parts IV and V of this permit apply to outfalls 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. Monitoring for these parameters shall occur at 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. eDMR reporting requirements for this outfall shall begin 90 days prior to start-up of the plant.

b. The benchmark concentrations listed below apply to these outfalls. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices in Part IV, Items A-C. See Part V.B for the dates when the benchmark concentrations become applicable.

Parameter	Benchmark
COD	120 mg/l
Zinc	310 ug/L

c. Monitoring and sampling shall be performed as required in the above table and as stated in Part V.B. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1=January - March, Q2=April - June, Q3=July - September, Q4=October - December). Discharge Monitoring Reports (DMRs) must be submitted monthly. If there are no discharges during the month, select the "No Discharge" check box on the eDMR.

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IF00019004. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 004 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units		Loading* kg/day					Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00335 - Chemical Oxygen Demand (Low Level) - mg/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly

Notes for Station Number 0IF00019004:

a. The benchmark concentrations and requirements of Parts IV and V of this permit apply to outfalls 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. Monitoring for these parameters shall occur at 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. eDMR reporting requirements for this outfall shall begin 90 days prior to start-up of the plant.

b. The benchmark concentrations listed below apply to these outfalls. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices in Part IV, Items A-C. See Part V.B for the dates when the benchmark concentrations become applicable.

Parameter	Benchmark
COD	120 mg/l
Zinc	310 ug/L

c. Monitoring and sampling shall be performed as required in the above table and as stated in Part V.B. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1=January - March, Q2=April - June, Q3=July - September, Q4=October - December). Discharge Monitoring Reports (DMRs) must be submitted monthly. If there are no discharges during the month, select the "No Discharge" check box on the eDMR.

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IF00019005. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 005 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units		Loading* kg/day					Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00335 - Chemical Oxygen Demand (Low Level) - mg/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	When Disch.	Grab	Quarterly

Notes for Station Number 0IF00019005:

a. The benchmark concentrations and requirements of Parts IV and V of this permit apply to outfalls 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. Monitoring for these parameters shall occur at 0IF00019001, 0IF00019003, 0IF00019004 and 0IF00019005. eDMR reporting requirements for this outfall shall begin 90 days prior to start-up of the plant.

b. The benchmark concentrations listed below apply to these outfalls. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices in Part IV, Items A-C. See Part V.B for the dates when the benchmark concentrations become applicable.

Parameter	Benchmark
COD	120 mg/l
Zinc	310 ug/L

c. Monitoring and sampling shall be performed as required in the above table and as stated in Part V.B. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1=January - March, Q2=April - June, Q3=July - September, Q4=October - December). Discharge Monitoring Reports (DMRs) must be submitted monthly. If there are no discharges during the month, select the "No Discharge" check box on the eDMR.

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IF00019601. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 601 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00310 - Biochemical Oxygen Demand, 5 Day - mg/l	79	-	-	30	104	-	39.5	1/Week	24hr Composite	All
00335 - Chemical Oxygen Demand (Low Level) - mg/l	160	-	-	100	211	-	132	1/Week	24hr Composite	All
00400 - pH - S.U.	9.0	6.0	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	148	-	-	46	195	-	61	1/Week	24hr Composite	All
00550 - Oil and Grease, Total - mg/l	20	-	-	15	26.3	-	19.8	1/Week	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00630 - Nitrite Plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
32102 - Carbon Tetrachloride - ug/l	38	-	-	18	0.050	-	0.024	1/Quarter	Grab	Quarterly
32106 - Chloroform - ug/l	46	-	-	21	0.061	-	0.028	1/Quarter	Grab	Quarterly
34010 - Toluene - ug/l	80	-	-	26	0.105	-	0.034	1/Month	Grab	All
34030 - Benzene - ug/l	136	-	-	37	0.179	-	0.049	1/Month	Grab	All
34200 - Acenaphthylene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly
34205 - Acenaphthene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly
34215 - Acrylonitrile - ug/l	242	-	-	96	0.319	-	0.127	1/Year	Grab	Yearly
34220 - Anthracene, General Organic - ug/l	4.43	-	-	-	0.006	-	-	1/Year	24hr Composite	Yearly
34230 - 3,4-BenzoFluoranthene - ug/l	61	-	-	23	0.080	-	0.030	1/Year	24hr Composite	Yearly
34242 - Benzo(k)Fluoranthene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
Parameter	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
34247 - Benzo-A-Pyrene - ug/l	61	-	-	23	0.080	-	0.030	1/Year	24hr Composite	Yearly
34311 - Chloroethane - ug/l	268	-	-	104	0.353	-	0.137	1/Year	Grab	Yearly
34320 - Chrysene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly
34336 - Diethyl phthalate - ug/l	203	-	-	81	0.268	-	0.107	1/Year	24hr Composite	Yearly
34341 - Dimethyl phthalate - ug/l	47	-	-	19	0.062	-	0.025	1/Year	24hr Composite	Yearly
34371 - Ethylbenzene - ug/l	108	-	-	32	0.142	-	0.042	1/Month	Grab	All
34376 - Fluoranthene - ug/l	68	-	-	25	0.090	-	0.033	1/Year	24hr Composite	Yearly
34381 - Fluorene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly
34396 - Hexachloroethane - ug/l	54	-	-	21	0.071	-	0.028	1/Year	24hr Composite	Yearly
34418 - Methyl Chloride - ug/l	190	-	-	86	0.251	-	0.113	1/Quarter	Grab	Quarterly
34423 - Methylene Chloride - ug/l	89	-	-	40	0.117	-	0.053	1/Quarter	Grab	Quarterly
34447 - Nitrobenzene - ug/l	68	-	-	27	0.090	-	0.036	1/Year	24hr Composite	Yearly
34461 - Phenanthrene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly
34469 - Pyrene - ug/l	67	-	-	25	0.088	-	0.033	1/Year	24hr Composite	Yearly
34475 - Tetrachloroethylene - ug/l	56	-	-	22	0.074	-	0.029	1/Year	Grab	Yearly
34496 - 1,1-Dichloroethane - ug/l	59	-	-	22	0.078	-	0.029	1/Year	Grab	Yearly
34501 - 1,1-Dichloroethylene - ug/l	25	-	-	16	0.033	-	0.021	1/Year	Grab	Yearly
34506 - 1,1,1-Trichloroethane - ug/l	54	-	-	21	0.071	-	0.028	1/Year	Grab	Yearly
34511 - 1,1,2-Trichloroethane - ug/l	54	-	-	21	0.071	-	0.028	1/Year	Grab	Yearly
34526 - Benzo(A)Anthracene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly
34531 - 1,2-Dichloroethane - ug/l	211	-	-	68	0.278	-	0.090	1/Year	Grab	Yearly
34536 - 1,2-Dichlorobenzene - ug/l	163	-	-	77	0.215	-	0.102	1/Year	24hr Composite	Yearly
34541 - 1,2-Dichloropropane - ug/l	230	-	-	153	0.303	-	0.202	1/Year	Grab	Yearly
34546 - 1,2-trans-Dichloroethylene - ug/l	54	-	-	21	0.071	-	0.028	1/Year	Grab	Yearly
34551 - 1,2,4-Trichlorobenzene - ug/l	140	-	-	68	0.185	-	0.090	1/Year	24hr Composite	Yearly

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
Parameter	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
34566 - 1,3-Dichlorobenzene - ug/l	44	-	-	31	0.058	-	0.041	1/Year	24hr Composite	Yearly
34571 - 1,4-Dichlorobenzene - ug/l	28	-	-	15	0.037	-	0.020	1/Year	24hr Composite	Yearly
34586 - 2-Chlorophenol - ug/l	98	-	-	31	0.129	-	0.041	1/Year	24hr Composite	Yearly
34591 - 2-Nitrophenol - ug/l	69	-	-	41	0.091	-	0.054	1/Year	24hr Composite	Yearly
34601 - 2,4-Dichlorophenol - ug/l	112	-	-	39	0.148	-	0.051	1/Year	24hr Composite	Yearly
34606 - 2,4-Dimethylphenol - ug/l	36	-	-	18	0.047	-	0.024	1/Year	24hr Composite	Yearly
34611 - 2,4-Dinitrotoluene - ug/l	285	-	-	113	0.376	-	0.149	1/Year	24hr Composite	Yearly
34616 - 2,4-Dinitrophenol - ug/l	123	-	-	71	0.162	-	0.094	1/Year	24hr Composite	Yearly
34626 - 2,6-Dinitrotoluene - ug/l	641	-	-	255	0.845	-	0.336	1/Year	24hr Composite	Yearly
34646 - 4-Nitrophenol - ug/l	124	-	-	72	0.164	-	0.095	1/Year	24hr Composite	Yearly
34657 - 4,6-Dinitro-o-cresol - ug/l	277	-	-	78	0.365	-	0.103	1/Year	24hr Composite	Yearly
34694 - Phenol - ug/l	26	-	-	15	0.034	-	0.020	1/Year	24hr Composite	Yearly
34696 - Naphthalene - ug/l	59	-	-	22	0.078	-	0.029	1/Year	24hr Composite	Yearly
39100 - Bis(2-ethylhexyl) Phthalate - ug/l	279	-	-	103	0.369	-	0.136	1/Year	24hr Composite	Yearly
39110 - Di-N-Butylphthalate - ug/l	57	-	-	27	0.075	-	0.036	1/Year	24hr Composite	Yearly
39175 - Vinyl Chloride - ug/l	268	-	-	104	0.353	-	0.137	1/Year	Grab	Yearly
39180 - Trichloroethylene - ug/l	54	-	-	21	0.071	-	0.028	1/Year	Grab	Yearly
39700 - Hexachlorobenzene - ug/l	28	-	-	0.09	0.037	-	0.00012	1/Year	24hr Composite	Yearly
39702 - Hexachlorobutadiene - ug/l	49	-	-	20	0.065	-	0.026	1/Year	24hr Composite	Yearly
40013 - Chlorobenzene - ug/l	28	-	-	15	0.037	-	0.020	1/Year	Grab	Yearly
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	Total	All
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Week	24hr Composite	All
77023 - Ethylene Glycol - ug/l	-	-	-	-	-	-	-	1/Month	Grab	All
77163 - 1,3-Dichloropropylene - ug/l	44	-	-	29	0.0576	-	0.0384	1/Year	Grab	Yearly
82388 - 1,4-Dioxane - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All

Notes for Station Number 0IF00019601:

* Effluent loadings based on average design flow of 0.362 MGD.

Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form and PIN the eDMR. eDMR reporting requirements for this outfall shall begin 90 days prior to start-up of the plant.

Hexachlorobenzene - see Part II, Item G.

Ethylene Glycol and 1,4-Dioxane - see Part II, Item K.

Part I, A. - FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IF00019602. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Internal Monitoring Station - 602 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units		Loading* kg/day		Measuring Frequency		Sampling Type		Monitoring Months	
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00400 - pH - S.U.	9.0	6.0	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	18	12	-	1.5	1.0	1/Week	24hr Composite	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	4.5	3.0	-	0.36	0.24	1/Week	24hr Composite	Winter
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	1.5	1.0	-	0.12	0.083	1/Week	24hr Composite	Summer
00630 - Nitrite Plus Nitrate, Total - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
31648 - E. coli - #/100 ml	-	-	284	126	-	-	-	1/Week	Grab	Summer
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
50060 - Chlorine, Total Residual - mg/l	0.038	-	-	-	-	-	-	1/Week	Grab	All
80082 - CBOD 5 day - mg/l	-	-	15	10	-	1.24	0.83	1/Week	24hr Composite	All

Notes for station 0IF00019602:

* Effluent loadings based on average design flow of 0.0144 MGD.

Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form and PIN the eDMR. eDMR reporting requirements for this outfall shall begin 90 days prior to start-up of the plant.

Part I, B. - INFLUENT MONITORING REQUIREMENTS

1. Influent Monitoring. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee shall monitor the treatment works' influent wastewater at Station Number 0IF00019600, and report to the Ohio EPA in accordance with the following table. See Part II, OTHER REQUIREMENTS, for location of influent sampling.

Table - Influent Monitoring - 600 - Final

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>							<u>Monitoring Requirements</u>		
	Concentration Specified Units				Loading* kg/day			Measuring	Sampling	Monitoring
Parameter	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly	Frequency	Type	Months
01034 - Chromium, Total (Cr) - ug/l	10	-	-	-	-	-	-	When Disch.	Grab	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	When Disch.	24hr Total	All

NOTES for Station Number 0IF00019600:

The permittee shall monitor daily flows of chromium catalyst wastewater discharged to biological treatment. Samples shall be collected before discharge to the biological treatment system (Outfall 0IF00019601).

See Part II, Item H. for best management practices related to the treatment and disposal of this wastewater.

Part II, OTHER REQUIREMENTS

A. WASTEWATER OPERATOR CERTIFICATION

The wastewater treatment works must be under supervision of a Class A State certified operator as required by rule 3745-7- 02 of the Ohio Administrative Code.

B. SAMPLING STATION DESCRIPTIONS

Description of the location of the required sampling stations are as follows:

Sampling Station	Description of Location
0IF00019001 .	Storm water discharge to the Ohio River. (Lat: 39 N 54 ' 38.05 "; Long: 80 W 45 ' 27.25 ")
0IF00019002 . . .	Discharge of process water (0IF00019601), sanitary wastewater (0IF00019602), cooling tower blowdown, reverse osmosis reject water and storm water to the Ohio River. (Lat: 39 N 54 ' 52.24 "; Long: 80 W 46 ' 40.55 ")
0IF00019003 .	Storm water discharge to the Ohio River. (Lat: 39 N 54 ' 43.51 "; Long: 80 W 46 ' 29.53 ")
0IF00019004 . .	Storm water discharge to the Ohio River. (Lat: 39 N 54 ' 31.08 "; Long: 80 W 45 ' 44.87 ")
0IF00019005 .	Storm water discharge to Lockwood Run. (Lat: 39 N 55 ' 14.17 "; Long: 80 W 47 ' 28.81 ")
0IF00019600 .	Chromium catalyst wastewater discharged to the process wastewater treatment system.
0IF00019601 .	Discharge of treated process wastewater prior to combining with other waste streams.
0IF00018602 .	Discharge of treated sanitary wastewater prior to combining with other waste streams.

C. TREATMENT TECHNOLOGY-BASED LIMITS REOPENER CLAUSE

This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved.

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

D. COOLING/BOILER WATER ADDITIVE CHEMICALS

In the event that the permittee's operation requires the use of cooling or boiler water treatment additives that are discharged to surface waters of the state, written permission must be obtained from the director of the Ohio EPA prior to use. Discharges of these additives must meet Ohio Water Quality Standards and shall not be harmful or inimical to aquatic life. Reporting and testing requirements to apply for permission to use additives can be obtained from the Ohio EPA, Central Office, Division of Surface Water, Industrial Permits Unit. This information is also available on the DSW website:

<http://www.epa.ohio.gov/dsw/policy/policy.aspx>

E. Composite samples shall be comprised of a series of grab samples collected over a 24-hour period and proportionate in volume to the wastewater flow rate at the time of sampling. Such samples shall be collected at such times and locations, and in such a fashion, as to be representative of the facility's overall performance.

F. Grab samples shall be collected at such times and locations, and in such fashion, as to be representative of the facility's performance.

G. WATER QUALITY-BASED LIMITS BELOW QUANTIFICATION LEVELS

The parameters below have had effluent limitations established that are below the Ohio EPA Quantification Level (OEPA QL) for the approved analytical procedure promulgated at 40 CFR 136. OEPA QLs may be expressed as Practical Quantification Levels (PQL) or Minimum Levels (ML).

Compliance with an effluent limit that is below the OEPA QL is determined in accordance with ORC Section 6111.13 and OAC Rule 3745-33-07(C). For maximum effluent limits, any value reported below the OEPA QL shall be considered in compliance with the effluent limit. For average effluent limits, compliance shall be determined by taking the arithmetic mean of values reported for a specified averaging period, using zero (0) for any value reported at a concentration less than the OEPA QL, and comparing that mean to the appropriate average effluent limit. An arithmetic mean that is less than or equal to the average effluent limit shall be considered in compliance with that limit.

The permittee must utilize the lowest available detection method currently approved under 40 CFR Part 136 for monitoring these parameters.

REPORTING:

All analytical results, even those below the OEPA QL (listed below), shall be reported. Analytical results are to be reported as follows:

- 1.Results above the QL: Report the analytical result for the parameter of concern.
- 2.Results above the MDL, but below the QL: Report the analytical result, even though it is below the QL.
- 3.Results below the MDL: Analytical results below the method detection limit shall be reported as "below detection" using the reporting code "AA".

The following table of quantification levels will be used to determine compliance with NPDES permit limits:

.	Parameter	PQL
Outfall 0IF00019002:		
.	Chlorine, tot. res.	0.050 mg/l
Outfall 0IF00019601:		
.	Hexachlorobenzene	0.25 ug/l

This permit may be modified, or, alternatively, revoked and reissued, to include more stringent effluent limits or conditions if information generated as a result of the conditions of this permit indicate the presence of these pollutants in the discharge at levels above the water quality based effluent limit (WQBEL).

H. BEST MANAGEMENT PRACTICES FOR CHROMIUM CATALYST WASTEWATER

The permittee shall collect samples for chromium at Station 0IF00019600 on any day that chromium catalyst wastewater is removed from chromium-bearing processes. These wastewaters may be discharged to the plant's process wastewater biological treatment system (Outfall 0IF00019601) if chromium concentrations in the catalyst wastewater are less than or equal to concentrations indicated in Part I. A.

If chromium catalyst wastewaters contain chromium concentrations greater than those permitted for discharge at Outfall 0IF00019600, those wastewaters may not be discharged under this permit and must be disposed of using Ohio EPA-approved procedures.

I. WATER QUALITY-BASED LIMITS REOPENER CLAUSE

Water quality based permit limitations in this permit may be revised based on updated wasteload allocations or use designation rules. This permit may be modified, or revoked and reissued, to include new water quality based effluent limits or other conditions that are necessary to comply with a revised wasteload allocation, or an approved total maximum daily loads (TMDL) report as required under Section 303 (d) of the Clean Water Act.

J. SLUDGE DISPOSAL

Not later than January 31 of each calendar year, the permittee shall submit two (2) copies of a report summarizing the sludge disposal and/or reuse activities of the facility during the previous year. One copy of the report shall be sent to the Ohio EPA, Division of Surface Water, Central Office, and one copy of the report shall be sent to the appropriate Ohio EPA District Office. This report shall address:

- 1) Amount of sludge disposed of/reused in dry tons.
- 2) Method(s) of disposal/reuse.
- 3) Summary of all analyses made on the sludge, including any priority pollutant scans that may have been performed. (If a priority pollutant scan has been conducted as a part of the pretreatment program, the most recent analysis should be submitted.)
- 4) Problems encountered including any complaints received. The cause or reason for the problem and corrective actions taken to solve the problem should also be included. Any incidents of interference with the method of sludge disposal shall be identified, along with the cause of interference (i.e., excessive metals concentration, contaminated sludge, etc.) and the corrective actions taken.

K. ANALYTICAL METHODS

The permittee shall use either EPA Method 1631 or EPA Method 245.7 promulgated under 40 CFR 136 to comply with the effluent mercury monitoring requirements of this permit.

It is understood by Ohio EPA that at the time permit 0IF00019*AD becomes effective, analytical methods are not approved under 40 CFR 136 to comply with the ethylene glycol and 1,4-dioxane monitoring requirements included in the permit. The permittee shall utilize USEPA Method 8015 from SW-846 for analyzing ethylene glycol. The permittee shall utilize USEPA Method 624 or 1624 for analyzing 1,4-dioxane.

L. OUTFALL SIGNAGE

Prior to any discharges, the permittee shall post a permanent marker on the stream bank at each outfall that is regulated under this NPDES permit and discharges to the Ohio River. This includes final outfalls, bypasses, and combined sewer overflows. The marker shall consist at a minimum of the name of the establishment to which the permit was issued, the Ohio EPA permit number, and the outfall number and a contact telephone number. The information shall be printed in letters not less than two inches in height. The marker shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above ground level. The sign shall be not be obstructed such that persons in boats or persons swimming on the river or someone fishing or walking along the shore cannot read the sign. Vegetation shall be periodically removed to keep the sign visible. If the outfall is normally submerged the sign shall indicate that.

M. BIOMONITORING REQUIREMENTS

As soon as possible but not later than three months after commencing discharge, the entity shall initiate an effluent biomonitoring program to determine the toxicity of the effluent from outfall 0IF00019002.

General Requirements

All toxicity testing conducted as required by this permit shall be done in accordance with "Reporting and Testing Guidance for Biomonitoring Required by the Ohio Environmental Protection Agency" (hereinafter, the "biomonitoring guidance"), Ohio EPA, July 1998 (or current revision). The Standard Operating Procedures (SOP) or verification of SOP submittal, as described in Section 1.B. of the biomonitoring guidance shall be submitted no later than three months after the effective date of this permit. If the laboratory performing the testing has modified its protocols, a new SOP is required.

Testing Requirements

1. Acute Bioassays

The permittee shall conduct quarterly acute toxicity tests using *Ceriodaphnia dubia* and fathead minnows (*Pimephales promelas*) on effluent samples from outfall 0IF00019002. These tests shall be conducted as specified in Section 2 of the biomonitoring guidance.

2. Data Review

a. Reporting

Following completion of each toxicity test, the permittee shall report results of the tests in accordance with Sections 2.H.1., and 2.H.2.a. of the biomonitoring guidance, including reporting the results on the monthly DMR and submitting a copy of the complete test report to Ohio EPA, Division of Surface Water, NPDES Permit Unit, P.O. Box 1049, Columbus, OH, 43216-1049.

Based on Ohio EPA's evaluation of the results, this permit may be modified to require additional biomonitoring, require a toxicity reduction evaluation, and/or contain whole effluent toxicity limits.

b. Definitions

TUa = Acute Toxicity Units = 100/LC50

N. INTAKE STRUCTURE CONSTRUCTION AND APPROVAL

This permit does not authorize the construction or operation of an intake structure. To obtain this authorization, the permittee must demonstrate that the intake design and proposed operation meets Best Technology Available requirements using the information required by paragraph O. below. When the permittee submits a permit-to-install for construction of the intake structure, the permittee shall also submit an NPDES modification application requesting an Ohio EPA determination of BTA.

O. INTAKE INFORMATION TO BE SUBMITTED WITH A PERMIT-TO-INSTALL FOR CONSTRUCTION OF THE INTAKE

1. Design and Construction Technology Plan. To comply with 40 CFR 125.84(b)(4) and (5), the permittee shall submit the following information in a Design and Construction Technology Plan:

- a. Information to demonstrate whether or not the criteria in §125.84(b)(4) and (b)(5) is met;
- b. Delineation of the hydraulic zone of influence for the cooling water intake structure;
- c. The owner or operator of a new facility required to install design and construction technologies and/or operational measures must develop a plan which explains the technologies and measures selected; this plan shall be based on information collected for the Source Water Biological Baseline Characterization required by 40 CFR 122.21(r)(4). Examples of appropriate technologies include, but are not limited to, wedgewire screens, fine mesh screens, fish handling and return systems, barrier nets, aquatic filter barrier systems, etc. Examples of appropriate operational measures include, but are not limited to, seasonal shutdowns or reductions in flow, and continuous operations of screens, etc. The plan must contain the following information:
 - i. A narrative description of the design and operation of the design and construction technologies, including fish-handling and return systems, that you will use to maximize the survival of those species expected to be most susceptible to impingement. Provide species-specific information that demonstrates the efficacy of the technology;
 - ii. A narrative description of the design and operation of the design and construction technologies that you will use to minimize entrainment of those species expected to be the most susceptible to entrainment. Provide species-specific information that demonstrates the efficacy of the technology; and
 - iii. Design calculations, drawings, and estimates to support the descriptions provided in Part II.O.1.c.i. and ii. above.

2. Source Water Data: The permittee shall submit the following source water physical data as required under 40 CFR 122.21(r)(2):

- a. A narrative description and scaled drawings showing the physical configuration of all source water bodies used by your facility, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports your determination of the water body type where each cooling water intake structure is located;
- b. Identification and characterization of the source waterbody's hydrological and geomorphological features, as well as the methods you used to conduct any physical studies to determine your intake's area of influence within the waterbody and the results of such studies; and
- c. Locational maps

3. Cooling water intake structure data. The permittee shall submit the following cooling water intake structure data as required under 40 CFR 122.21 (r)(3):

- a. A narrative description of the configuration of each of your cooling water intake structures and where it is located in the water body and in the water column;
- b. Latitude and longitude in degrees, minutes, and seconds for each of your cooling water intake structures;
- c. A narrative description of the operation of each of your cooling water intake structures, including design intake flows, daily hours of operation, number of days of the year in operation and seasonal changes, if applicable;
- d. A flow distribution and water balance diagram that includes all sources of water to the facility, recirculating flows, and discharges; and
- e. Engineering drawings of the cooling water intake structure.

4. Source water baseline biological characterization data. The permittee shall submit the following baseline biological characterization data as required under 40 CFR 122.21 (r)(4):

- a. A list of the data in paragraphs Part II.O.h.ii through Part II.O.h.vi of this section that are not available and efforts made to identify sources of the data;
- b. A list of species (or relevant taxa) for all life stages and their relative abundance in the vicinity of the cooling water intake structure;
- c. Identification of the species and life stages that would be most susceptible to impingement and entrainment. Species evaluated should include the forage base as well as those most important in terms of significance to commercial and recreational fisheries;
- d. Identification and evaluation of the primary period of reproduction, larval recruitment, and period of peak abundance for relevant taxa;
- e. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the cooling water intake structure;
- f. Identification of all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at your cooling water intake structures; and
- g. Documentation of any public participation or consultation with Federal or State agencies undertaken in development of the plan.

P. INTAKE STRUCTURE INFORMATION TO BE SUBMITTED WITH THE NEXT NPDES APPLICATION

1. The permittee shall submit the following information required by federal 316(b) regulations no later than the NPDES permit renewal application due date. The information shall be submitted to the Ohio EPA Southeast District Office and will be evaluated to determine compliance with Section 316(b) of the federal Clean Water Act (33 U.S.C. section 1326). The specific requirements are listed under the Code of Federal Regulations (CFR), Chapter 40, Part 125, Subpart I- Requirements Applicable to Cooling Water Intake Structures for New Facilities Under Section 316(b) of the Clean Water Act:

a. Flow Reduction Information. If you must comply with the flow reduction requirements in §125.84(b)(1), you must submit the following information to the Director to demonstrate that you have reduced your flow to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system:

i. A narrative description of your system that has been designed to reduce your intake flow to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system and any engineering calculations, including documentation demonstrating that your make-up and blowdown flows have been minimized; and

ii. If the flow reduction requirement is met entirely, or in part, by reusing or recycling water withdrawn for cooling purposes in subsequent industrial processes, you must provide documentation that the amount of cooling water that is not reused or recycled has been minimized.

b. Velocity Information. You must submit the following information to the Director to demonstrate that you are complying with the requirement to meet a maximum through-screen design intake velocity of no more than 0.5 ft/s at each cooling water intake structure as required in §125.84(b)(2) and (c)(1):

i. A narrative description of the design, structure, equipment, and operation used to meet the velocity requirement; and

ii. Design calculations showing that the velocity requirement will be met at minimum ambient source water surface elevations (based on best professional judgement using available hydrological data) and maximum head loss across the screens or other device.

a. Flow Reduction Information. The permittee shall submit the following information in accordance with 40 CFR §125.84(b)(1) to demonstrate that flow has been reduced to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system:

- i. A narrative description the system that has been designed to reduce intake flow to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system and any engineering calculations, including documentation demonstrating that make-up and blowdown flows have been minimized; and
- ii. If the flow reduction requirement is met entirely, or in part, by reusing or recycling water withdrawn for cooling purposes in subsequent industrial processes, you must provide documentation that the amount of cooling water that is not reused or recycled has been minimized.

b. Velocity Information. The permittee shall submit the following information to demonstrate compliance with the requirement to meet a maximum through-screen design intake velocity of no more than 0.5 ft/s at each cooling water intake structure as required in 40 CFR 125.84(b)(2):

- i. A narrative description of the design, structure, equipment, and operation used to meet the velocity requirement; and
- ii. Design calculations showing that the velocity requirement will be met at minimum ambient source water surface elevations (based on best professional judgement using available hydrological data) and maximum head loss across the screens or other device.

c. Source Waterbody Flow Information. The permittee shall submit the receiving stream's annual mean flow and any supporting documentation and engineering calculations to demonstrate that the total design intake flow is no greater than five percent of the source water annual mean flow in accordance with 40 CFR 125.84(b)(3).